



VCAP PY26 Update Webinar

This meeting will be recorded & available on the VASWCD VCAP Employee Resources Page

Please mute your microphone

Agenda

VASWCD Board of Directors Role

PY26 VCAP Submission Schedule

Programmatic Review & Updates

Form Review & Updates

VCAP Implementation & Design Manual, Tenth Edition

BMP Specification Updates

VCAP PY2026 Schedule						
Water Cooler Chat (2 PM)	Submission Deadline (5 PM)	Revision Deadline (5 PM)	Steering Committee Meeting (9 AM)			
Tues, July 8, 2025	Fri, July 11, 2025	Fri, July 18, 2025	Fri, July 25, 2025			
Tues, August 12, 2025	Fri, August 15, 2025	Fri, August 22, 2025	Thurs , August 28, 2025 * <i>Early</i>			
Tues, September 9, 2025	Fri, September 12, 2025	Fri, September 19, 2025	Fri, September 26, 2025			
Tues, October 14, 2025	Fri, October 17, 2025	Fri, October 24, 2025	Fri, October 31, 2025			
Weds, November 5, 2025 *Early	Fri, November 7, 2025 * <i>Early</i>	Fri, November 14, 2025 * <i>Early</i>	Fri, November 21, 2025 * <i>Early</i>			
December Water	Cooler Chat and Steering Com	mittee Meeting Cancelled for VA	ASWCD Annual Meeting			
Tues, January 13, 2026	Fri, January 16, 2026	Fri, January 23, 2026	Fri, January 30, 2026			
Tues, February 10, 2026	Fri, February 13, 2026	Fri, February 20, 2026	Fri, February 27, 2026			
Tues, March 10, 2026	Fri, March 13, 2026	Fri, March 20, 2026	Fri, March 27, 2026			
Tues, April 7, 2026	Fri, April 10, 2026	Fri, April 17, 2026	Fri, April 24, 2026			
Tues, May 12, 2026	Fri, May 15, 2026	Fri, May 22, 2026	Fri, May 29, 2026			
Tues, June 9, 2026	Fri, June 12, 2026	Thurs , June 18, 2026 * <i>Early</i>	Fri, June 26, 2026			

^{*}No change to general monthly schedule; Applications and Payment Request materials due two weeks prior to Steering Committee meetings

VASWCD Board Role

State approved funding continues to pass through agencies to VASWCD, and VASWCD continues to have full oversight of VCAP.

There were formality changes that include the following:

- The VASWCD Board, based on recommendations from the VCAP Steering Committee, approves the VCAP Manual.
- The VCAP Program Year timeline has been updated to better align with the VACS timeline.
- The VASWCD Board approves the membership of both the Steering Committee and the Technical Advisory Committee.

PY26 VCAP Cost-Share Rates & Caps					
ВМР Туре	Variable Lifespan	Reimbursement Rate	Reimbursement Cap		
Conservation Landscaping (CL) CL-1 Meadow CL-2 Tree Planting	5 years	35% of total eligible cost up to cap	\$7,000.00		
□ CL-3 Mixed Planting Bed□ CL-4 Filter Strip□ CL-5 Riparian Buffer	10 years	80% of total eligible cost up to cap	\$7,000.00		
Dain Cauden (DC)	5 years	35% of total eligible cost up to cap	\$7,000.00		
Rain Garden (RG)	10 years	80% of total eligible cost up to cap	\$7,000.00		
Don. MACH. (DMA)	5 years	35% of total eligible cost up to cap	\$7,000.00		
Dry Well (DW)	10 years	80% of total eligible cost up to cap	\$7,000.00		
Rainwater Harvesting (RWH)	5 years	\$1.50 per gallon of treatment volume*	\$20,000.00		
	10 years	\$4.00 per gallon of treatment volume*	\$20,000.00		
ВМР Туре	Mandatory Lifespan	Reimbursement Rate	Reimbursement Cap		
Impervious Surface Removal (ISR)	10 years	\$5.00 per square foot	\$20,000.00		
Permeable Pavement (PP)	10 years	\$14.00 per square foot**	\$20,000.00		
Vegetated Stormwater Conveyance (VSC) ■ VSC-DS Dry Swale ■ VSC-WS Wet Swale ■ VSC-SPCS Step Pool Conveyance System	10 years	80% of total eligible cost up to cap	\$20,000.00		
Constructed Wetland (CW)	10 years	80% of total eligible cost up to cap	\$20,000.00		
Bioretention (BR)	10 years	80% of total eligible cost up to cap	\$30,000.00		
Infiltration (IF)	10 years	80% of total eligible cost up to cap	\$30,000.00		
Green Roof (GR)	10 years	\$20.00 per square foot	\$30,000.00		
Living Shorelines (LS)	10 years	80% of total eligible cost up to cap	\$30,000.00		
*Cost -share rate is applied to th	e 1-inch volume of runoff colle	ected rounded up to the nearest gallon, not tank of	capacity.		

^{*}No change to reimbursement rates or caps currently, variable lifespan (either 5 or 10 years) still available for select practices

^{**}All costs associated with Impervious Surface Removal (ISR) are considered a component cost of Permeable Pavement (PP).

Applicants, including any entity or member of the same household, will be limited to \$50,000.00 in cost-share.



VIRGINIA CONSERVATION ASSISTANCE PROGRAM CONTRACT (Part I – Application for Program)

PY 2026

Application/Contra	ct Number:	Application Date:	
First Name:	rst Name: Last Name:		
Representative (if i	needed):		
Address:		City/County:	
State:	Zip code:		
Telephone Number	-		
Email Address:			

APPLICANT' 5 REQUEST:

I agree to install and maintain all practices receiving financial incentives according to Program Specifications required at the time of installation/ payment approval of my application by the Board of Directors of the local Soil and Water Conservation District (the "Board"). I agree to allow appropriate agency personnel or their designee access to land under my control for the purpose of evaluation, design, construction and inspection of said practice(s) from this date forward through the required lifespan. I agree to refund all or part of the cost-share financial assistance I have received if my practice(s) is/are found not to meet program specifications required at the time of installation/payment, or if the practice(s) is/are removed or not properly maintained during the lifespan of the practice(s). I understand that the sale, lease, or changed use of the property will not exempt me from fulfilling this/these requirement(s) described herein. I also understand that my period of responsibility begins with the acceptance of payment and extends through the lifespan of the practice in accordance with Program requirements. Lifespan is defined as "the number of years a BMP must be maintained in accordance with Program standards. The lifespan begins on January 1 of the calendar year following steering committee approval of payment." A BMP is subject to verification checks throughout the practice lifespan. The voluntary participation in VCAP does not relieve or relinquish me from compliance with ordinances, laws and regulations that may exist at any level of government. I understand that applying to participate in any of the above listed program does not guarantee that any or all of my request will be funded. I understand that if the practice I am requesting cost-share funding for is located within the Chesapeake Bay watershed, nutrient and sediment reduction Information related to that practice will be submitted to the Virginia Department of Environmental Quality for reporting to the Chesapeake Bay Program to determine progress made towards Chesapeake Bay pollution reduction targets.

Cost-share funds are considered income. Recipients of these funds are responsible for compliance with all applicable tax requirements including requirements of the internal Revenue Service.

REMEDIES IF THIS AGREEMENT IS BREACHED:

If my practice(s) is/are found not to meet Program Specifications required at the time of approval of my application by the Board, then I agree to refund all of the cost-share financial assistance I have received. If the practice(s) is/are removed (in whole or in part) or not properly maintained during the lifespan of the practice(s), then I agree to refund all of the cost-share financial assistance I have received, minus a pro rata portion of the assistance from the number of months that my practice(s) had been previously in compliance, out of the number of months in the lifespan of the practice. Any refund shall be calculated with a penalty of 6% APR from the date of breach to the date of judgment, apart from post-judgment interest. In the event that demand is made for reimbursement and I fall or refuse to pay such reimbursement within 90 days of the demand, then I agree to pay any and all attorneys' fees for enforcement of this agreement.

Signature of Applicant	Date	
Virginia Cons	ervation Assistance Program Contract	
	Part I of III	
	Page 1 of 1	

VIRGINIA CONSERVATION ASSISTANCE PROGRAM CONTRACT PY 2026 (Part II - Technical Determination and SWCD Approval) Representative (If needed): ZIp Code Telephone Number Email Address Address of BMP City/County ZIp code Ranking Score: Practice Code Practice Size (SF. LF. Gall) GPS Coordinates Contributing Drainage Area npervious Area Treated mnervious Area Removed Are you receiving any other funding assistance for this project? Source and amount Required prior to notifying participant of approval, AUTHORIZATION: Required Completion Date:
This practice must be installed and certified at the issuing SWCD by the above date our request form has been: Approved Not Approved and start of work District Authorization by (SWCD Direct Virginia Conservation Assistance Program Contract Cost Share Estimation: Part II of III Required with (the Applicant) acknowledge receipt of this document. I have received and reviewed the VCAP Program Specifications in the current VCAP Manual and agree to follow the requirements of the program as outlined therein. I understand that substantial deviation from approved projects may result in a decreased cost-share, payment by the SWCD for completed projects, or portions thereof, and may result in denial of future cost-share program applications. application submission to Steering Committee Signature of Applicant Required after Steering Committee and local Board approval, prior to start of work (Original to be retained by the SWCD, Copy with signature provided to the applicant). Date stamp: Virginia Conservation Assistance Program Contract

*No change to Part I or Part II



VIRGINIA CONSERVATION ASSISTANCE PROGRAM CONTRACT (Part III – Technical Installation and Payment)

PY 2026

Applicant Name: Contract Number:						
Address: State:		State:	Zip Code			
	Practice Code:		Practice Size (SF, LF, Gal):			
GPS Coordinates:				HUC:		
Dominant Land Use:			Contributing Drainage Area:			
Impervious Area Treated:			Impervious Area Removed:			
Final Total Cost:		Final Cost She	re:			

TECHNICIAN PRACTICE INSTALLATION CERTIFICATION

I certify that all administrative and technical components of any practice listed above for payment and/or tax credit have been completed by an appropriately qualified individual and that each practice meets all applicable standards and specifications necessary for certification and/or payment. All practices are subject to verifications and any other quality control measures.

Name Title Date

I, the Participant (Applicant), certify that the Information above is true and correct. I have received and compiled with all Program Specifications; and I have installed and agree to maintain this/these practice(s) as built for the practice lifespan in accordance with the Program Specifications:
"Program Specifications," as used throughout this Contract, means the following documents applicable to this/these practice(s):

- VCAP Program Specifications for this practice;
- Site-specific engineering designs;
- Department of Environmental Quality Best Management Practice Clearinghouse Specifications.

The Program Specifications (together with Parts I and II of this Contract) are included and incorporated by reference within this Contract. I agree to refund all or part of the cost-share financial assistance I have received if my practice(s) Is/are found not to meet Program Specifications required at the time of installation/payment or if the practice(s) Is/are removed or not properly maintained during the lifespan of the practice(s). I understand and agree that this/these practice(s) are subject to verification checks and any other quality control measure throughout the practice lifespan; and if SWCD staff are unable to access the site for inspection within one month of a request to inspect the site, then this failure will create a rebuttable presumption that I am not in compliance with this Contract. I understand that the sale, lease, or changed use of the property will not exempt me from fulfilling the requirement(s) of this Contract. I also understand that my period of responsibility begins with the acceptance of payment and extends through the lifespan in accordance with program requirements. I understand that my noncompliance can result in removal from participation from the program or a reduction in cost-share funding.

Virginia Conservation Assistance Program Contract Part III of III; Page 1 of 2

*One change to Part III; Lifespan start & end date spaces added

Lifespan start date begins January 1st of the year following Steering Committee approval of the payment request.

Required with Payment Request submission to Steering Committee

I understand and agree that the District and the Virginia Association of Soil and Water Conservation Districts has permission to use any of the photos provided to publicly promote the Virginia Conservation Assistance Program. I understand that the images may be used in print publications, online, presentations, websites, and social media without royalty, fee, or other compensation. To request that photos are NOT used for purposes outlined above, initial here: I understand that the approved BMP cannot be used for the purposes of Nutrient Trading or for regulatory compliance.				
	n District (SWCD), in consideration for the mutual promises and exchanges described in this Contract, hereby ntract, consisting of the three parts labeled Parts I, II, and III.			
execute this con	tract, constant of the three parts labeled Parts I, II, and III.			
Contract Lifespan Start Date:				
Contract Lifespan End Date:				
PARTICIPANT:	SOIL AND WATER CONSERVATION DISTRICT: Print Name:			
Print Name:	THE VALUE.			
Signature:	Title:			

Must be obtained prior to disbursing cost-share

Required prior to notifying participant of payment approval and disbursing cost-share

COMMONWEALTH OF VIRGINIA

Department of Conservation and Recreation, Division of Soil and Water Conservation, activities and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin or political affiliation. An equal opportunity/affirmative action employer.

(Original to be retained by the SWCD, Copy with Signature provided to the applicant)

Virginia Conservation Assistance Program Contract Part III of III , Page 2 of 2

*One change to Form 4; email spaces added

Virginia Conservation Assistance Program

PY 2026



Contract Number

Agreement Transferring BMP Responsibility

VCAP Form 4

AGREEMENT TRANSFERRING RESPONSIBILITY FOR BEST MANAGEMENT PRACTICE

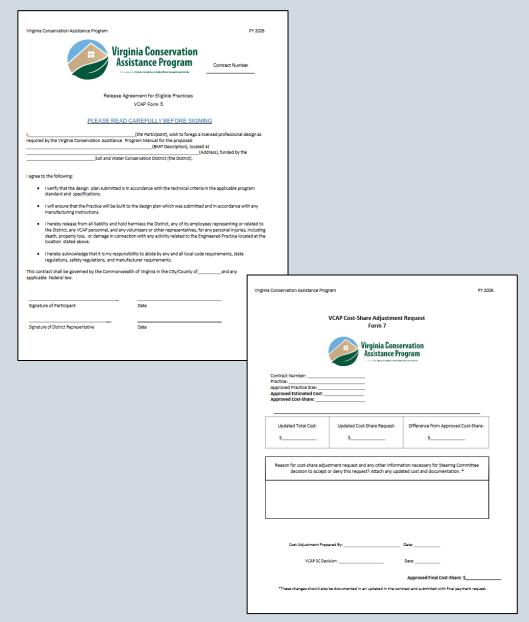
This agreement is intended to designate the transfer of maintenance responsibility for a VCAP BMP that received cost-share. The present owner of the property has received funding from VCAP to implement a practice on the below-referenced land unit. In return he/she has agreed to maintain the practice until ... Completion of this agreement acknowledges assumption of responsibility by the new property owner, including the requirement to repay cost-share funds received by the present participant if the BMP is not maintained according to state—specifications or in accordance with the Operations and Maintenance Plan described in the Job Sheet (VCAP Form 2).

Contract Number: Name of	Name of Soil and Water Conservation District:				
BMP Latitude:	BMP Longitude:				
BMP Code and Name (if applicable):					
Practice Size (sq. ft., lin. ft., gal.):	_				
PRESENT PARTICIPANT NAME & ADDRESS	NEW PARTICIPANT NAME & ADDRESS				
Phone Number:	Phone Number:				
Email:	Email:				
Email:	Emāli:				

The undersigned hereby certifies that the present participant has transferred to the new participant his or her right and interest in the land unit described above. In consideration of this transfer of ownership or leasehold, it is hereby agreed:

- The new participant hereby assumes the duties and obligations of the present participant under Contract Number:
 to maintain the above BMP for its lifespan in accordance with state specifications or the assigned
 Operation and Maintenance Plan described in the Job Sheet, and to refund all or part of the cost-share assistance or other
 provided funding if the practice is found not to meet state specifications, or if the practice is removed or not properly
 maintained during its lifespan. The new participant agrees to allow District personnel access to his/her property for the
 purpose of verifying maintenance of BMP.
- The District acknowledges the transfer of the maintenance responsibility. Any cost-sharing or assistance provided under this transfer agreement shall be in accordance with applicable program rules and regulations.

(SIGNATURE OF PRESENT PARTICIPANT)	(SIGNATURE OF NEW PARTICIPANT)
DATE	DATE
SSN or Federal Tax ID#	SSN or Federal Tax ID#
District Board Approved By:	Date:



*No changes to Form 5 or Form 7

Minimum Ranking Score Effective July 1, 2025:

65

*New Form 6 (Ranking Sheet)

Improve clarity of use for district staff;

reduce common errors;

Updated cost-effectiveness calculation to account for inflation;

Reduced penalty for smaller parcels that select CL as BMP (or provide opportunity for small parcels to qualify for CL, while maintaining preference for structural BMPs).

PY26 VCAP Practi	ce Pankins	(Sheet (Form 6)	Contract				
		funding application submitted to the V		tr.			
	Practice Estimated Total Cost						
Enter / select data in green cells	Resour	ce Concern	Cost-Share Requested				
	£			D. 14 1	D. F.		
Ranking Criteria		Description Erosion: loss or transport of topsoil	on	Pt Value	Pts Earned		
Resource concern identifie	ed	Poor Vegetative Cover: low density ground	towar (< 75%)	20 15			
& addressesd by BMP		Excess Runoff: pervious/impervious areas		10			
		Excess number, pervious/impervious areas	that contribute to fullor	-			
BMP type (select one)				0, 5, or 10			
		BMP is for an individual private residence		10			
Ownership (select one)	Ownership (select one)		BMP is for a public park, school, or facility				
		BMP is for a HOA, business, or nonprofit	7				
Applicant is working with partner agency or nonprofit	maintenance Naturalists, o	partner organization actively involved in des e of BMP. Includes organizations like Maste or other NGOs working on public lands or wi U/MOA partnerships and permitting agenci	r Gardeners, Master th private residences.	5			
BMP is publicly accessible and part of an educational program	trails, water,	ssible and has educational value. Applicabl or public facilities and be part of an educat sroom or demonstration site		10			
Intercepts impervious runoff en stormwater comveyance sys	_	Qualifying BMPs include RG, DW, CW, RV Must NOT have an under drain. Proposed alternative disconnection. BMP Qualifies i intercepts impervious runoff prior to disch conveyance	BMP provides when the practice	10			
Slope (select one)			619	0, 5, or 10			
700	-	Resource concern located within 40 ft of	stormwater conveyance	20			
Proximity to stormwater conveyance system or waterway (select one if applicable)		system (ditch, storm drain, or waterway) Resource concern located within 100 ft of conveyance system (ditch, storm drain, or	17.5	10			
Absence of stormwater managemer downstream of site	nt facilities	Site/drainage area of the resource concer stormwater directly into natural waterway, distance to the waterway. A site is conside stormwater flows into an existing stormwa structure or facility, such as a stormwater swale, or similar	, regardless of the ered treated if iter management	10			
BMP is located within a watershe sediment or nutrient TMDL, or locat MS4 (Phase I or Phase II)		BMP is located within a watershed with a s TMDL. TMDL Implementation Plan is not re within in a MS4 (Phase I or Phase II)		10			
Treatment area		Enter IAT in SF (include surface area for	or ISR, PP, GR being converted		0.0		
(not applicable to CL-1 -2 -3 -5, LS)	Enter C	DA in SF should include all impervious and			0.0		
			Enter surface area of BMP in Si G, CW, all VSC, BR, IF, PP GR				
Installed area		Enter treatment gallo	ons (applicable to DW & RWH)			
		Enter linear foot	of BMP (applicable to LS only)			
		Enter area of revegetation	on in SF (applicable to LS only				
		Cost per	Impervious Area Treated (\$/SF	0.00	0.0		
Cost effectiveness		Cost per Insta	illed Area (\$/SF or \$/Gal or \$/LF		#DIV/0!		
		DMD D-I	lutant Removal Efficiency (EFF	4			
Pollutant removal officians:							
Pollutant removal efficiency		Contributing drainage area weighted runoff value (Rv) Pollutant Load (lbs phosphorus per year)			0.0		
		Foliutant	Load (abs priospriorus per year	0.00	0.0		
	Total	Ranking Score		(0.0		

*no change in SUPP Form 8 and Form 9

SUPP offers up to 50% cost-share upon application approval, easing the financial burden of a fully reimbursable program.

Only Districts that have opted into SUPP may provide this resource to their participants. Districts can opt-in by:

- 1) The District Board agrees to an MOU with the VASWCD; or
- 2) Recording a motion in the District Board minutes detailing participation in SUPP

If the application is conditionally approved by the Steering Committee, SUPP funds will not be released from the District to the applicant until the applicant acknowledges the conditions of approval and any required amendments to the design are made and approved by Association staff.

*no change to the Assignment of Payment Authorization Form

Assignment of Payment allows districts to direct cost-share payments to contractors, installers, designers, and technical providers using the "Assignment of Payment Authorization" form.

If the Assignment of Payment system is used, the district must obtain a copy of a W-9 tax form from the <u>recipient of the payment prior</u> to issuing cost share funds. When payment is directed using the Assignment of Payment form, the district will provide a 1099-NEC to the specified technical provider per the IRS deadlines. If payments bridge a calendar year, the district will issue two 1099's to the appropriate individual or technical provider.

The Assignment of Payment Form can only be used to direct payment to <u>ONE</u> payee. Cost share payments <u>cannot be split</u> between two or more parties (ex: between the landowner/applicant and the technical provider).

For use in PY26 (July 1, 2025 – June 30, 2026)

Part 1: Program Development and Implementation changes:

- Program Eligibility: VCAP participation may be eligible to public, private, non-profits, and commercial landowners, and <u>Tribal Lands</u> within a participating SWCD.
 - page 2, section 1.1.B.2 Participants
- VASWCD Role: clarification of VASWCD Board oversight of VCAP:
 - The VASWCD Board of Directors, in fulfilling its fiduciary responsibilities overseeing VCAP, will approve the VCAP Implementation and Design Manual, Steering Committee membership, and Technical Advisory Committee membership. The VASWCD Board of Directors retains absolute authority over VCAP, encompassing Steering Committee and Technical Advisory Committee membership, this Manual, and all program policies and operations. The Board may enact changes to the membership or manual at any time, for any reason, without prior notice.
 - page 4, section 1.3.2 VASWCD Role

Part 1: Program Development and Implementation changes:

- Steering Committee Role and Responsibilities: addition of recusal guidance suggested by OAG to avoid conflicts of interest:
 - In order to avoid conflicts of interest, Steering Committee members should recuse themselves on matters involving (1) the Districts they are currently employed in (2) any Districts which they are or have been an adverse party to in litigation and/or (3) they have been terminated from or have left in poor standing.
 - page 5, section 1.3.2 VCAP Steering Committee Role
- Participant Responsibilities: clarification of landownership changes:
 - When land ownership changes, such as through a property sale, the participant holding the contract has two
 options. They may choose to cancel the contract and repay a pro-rated portion of the cost-share amount, or they
 can complete an Agreement Transferring BMP Responsibility (Form 4) to transfer the contract and its associated
 maintenance responsibilities to the new owner.

If the property ownership changes and the new owner does not wish to accept liability for the existing contract, the original BMP owner must return a pro-rated amount to the VASWCD by the District. This repayment is calculated from the lifespan start date (January 1st of the calendar year following payment approval), to the most recent successful inspection.

• Two locations, same language: page 6, section 1.3.5 Participant Responsibilities & page 11, section 1.5.2 Corrective Action

Part 1: Program Development and Implementation changes:

- **Practice Completion Deadline:** adjusted from May to June of following calendar year:
 - All projects approved by the Steering Committee during a given calendar year must be installed, inspected, and submitted for reimbursement by the <u>June</u> Steering Committee of the following calendar year, unless otherwise required by certain funding sources. For example, projects approved in calendar year 2025 have a completion deadline of <u>June</u> 2026. Districts can set earlier due dates to accommodate processing by their Boards or internal committees. Districts should contact the VCAP Coordinator if they foresee obstacles in completing projects before the deadline.
 - page 6, section 1.3.6 Funding Allocations
- **SUPP Payment Process:** adjusted to reflect current procedures:
 - If the application is conditionally approved by the Steering Committee, SUPP funds will not be released from the District to the applicant until the applicant acknowledges the conditions of approval and any required amendments to the design are made and approved by Association staff.
 - page 9, section 1.4.4 Start-Up Payment Program (SUPP)

Part 1: Program Development and Implementation changes:

- Phased Applications / Multiple BMPs: clarification on eligibility of multiple BMPs on the same property:
 - One single functioning BMP cannot cross property boundaries nor will VCAP accept multiple
 application from adjacent property owners for the same BMP footprint. Cost-share funding is for the
 initial installation of a VCAP BMP. Applications seeking additional funds to expand an existing VCAP
 BMP will not be accepted. Any contiguous BMP is not eligible for multiple cost share payments (ex:
 phasing).
 - page 12, section 1.6 Cost-Share Rates and Caps

Part 2: Stormwater Overview – no changes

Part 3: Eligible Best Management Practices

- Form 5 Release Agreement: clarification on applicability of Form 5 based on practice type and parameters:
 - Depending on the scale of the practice, a Release Agreement (Form 5) may be used to waive the requirement for the design plan to be certified with a stamp from a licensed professional. The Steering Committee must be notified when a participant requests waiving this requirement. The following will be used by Districts as a guide for that determination in accordance with the scale tables below.
- Districts may approve the waiver for Small Scale projects.
- Steering Committee may approve the waiver for Medium Scale projects.
- Large Scale projects cannot waive the requirement for a design plan to be stamped by a licensed professional.
 - page 26, section 3.1 Release Agreement for Advanced BMPs

Table 3.1: Applicability of Form 5 (Release Agreement) for VCAP Practices Designed without Seal of Licensed Professional.

Practice Type	Parameter	Small	Medium	Large
Bioretention, Infiltration, and Constructed Wetlands	Practice Size	< 500 SF	< 1,500 SF	> 1,500 SF
Vegetated Stormwater Conveyance	Drainage Area Slope	< 1 acre < 2%	< 3 acres < 4%	> 4%
Rainwater Harvesting	Tank Size	< 1,000 gallons	< 3,000 gallons	> 3,000 gallons
Permeable Pavement	Practice Size	< 1,000 SF	< 5,000 SF	> 5,000 SF
Green Roof	Practice Size	NA	< 200 SF	> 200 SF
Living Shoreline	Fetch	NA	< 0.5 miles	> 0.5 miles

VCAP Implementation & Design Manual, Tenth Edition BMP Specification Changes:

Minor revisions, typographical corrects, and clarifications:

- Impervious Surface Removal (ISR) clarification on removal of stone / rock mulch
- Conservation Landscaping (CL) clarification on purpose, not intended to replace existing landscaping or foundational plantings
- Rainwater Harvesting (RWH) clarification on Virginia Department of Health regulations
- Infiltration (IF) remove restrictions on parking or vehicular traffic
- Permeable Pavement (PP) clarification on use of fill material and HSG C and D site soils
- Living Shorelines (LS) removal of conflicting language on contiguousness
- Constructed Wetlands (CW) formatting updates; TAC to review for alignment with Virginia Stormwater Management Handbook in PY26 for release in PY27

BMP Specification Changes:

Major revisions by VCAP TAC and Steering Committee to align with Virginia Stormwater Management Handbook:

- Vegetated Stormwater Conveyance (VSC)
- Green Roofs (GR)

Vegetated Stormwater Conveyance (VSC)

A. Purpose

Vegetated Stormwater Conveyances are designed to mimic natural drainage processes, offering a more sustainable and effective approach to stormwater management than traditional pipe systems. They help to protect water quality, reduce erosion, and manage stormwater runoff in a way that benefits the environment. Vegetated Stormwater Conveyances must be implemented to enhance existing channels or swales and shall not be used to create new channels or swales that alter established drainage flow paths.

- Dry swales (VSC-DS): shallow channels with a series of check dams that provide temporary storage to allow infiltration of the treatment volume (Tv). Dry swales use an engineered soil media as the channel bed with an under drain if necessary.
- Wet Swales (VSC-WS): shallow channels with check dams that create more permanent pools and provide
 enhanced pollutant removal within the conveyance. Linear on-line or off-line wetland cells are formed within
 the channel to create saturated soil or shallow standing water conditions to maintain a wetland plant
 community. The saturated soil and wetland vegetation provide an ideal environment for gravitational settling,
 biological uptake, and microbial activity.
- Regenerative Stormwater Conveyances (RSC): treat and convey stormwater through a combination of sand, wood chips, native vegetation, riffles, and shallow pools. RSCs are designed to convey water while minimizing erosion. RSCs shall only be considered after all other measures have been evaluated, this Manual focuses on the Step-Pool Conveyance Swale (VSC-SPCS) type of RSC.

Vegetated Stormwater Conveyance (VSC)

B. Site Criteria

- Dry Swales (VSC-DS):
 - Dry Swales shall have a maximum total contributing drainage area of 5 acres.
 - Site soils must be capable of infiltrating stormwater runoff (>0.5 inches/hour). An infiltration test must be performed. Ponded water should be retained no longer than 48 hours.
 - O Depth to water table shall be ≥1 foot from bottom of excavation. If the seasonal high water table is identified as a potential concern based on field or desktop analysis, it should be verified by a professional soil scientist (Contact Extension, NRCS, or Society of Professional Soil Scientists for local providers).
 - Depth to bedrock shall be ≥2 feet from bottom of excavation.
 - The longitudinal slope of the designed channel should be less than 4%.
 - Cannot be placed on wetland soils.
 - If practice is placed within areas designated as the FEMA 100-year flood plain, 1% annual chance flood plain, the impact of floodwaters on the practice should be taken into consideration.
 - Shall be located at least 10 feet from building foundations (includes basement and crawl space walls, slabs on grade), greater if upgradient. May not be appropriate near buildings where there is significant risk for basement seepage.
 - Impact on septic drain fields should be evaluated prior to application submission. Consult local setback requirements.

Vegetated Stormwater Conveyance (VSC)

Wet Swales (VSC-WS):

- Shall have a maximum total contributing drainage area of 5 acres.
- o The longitudinal slope of the designed channel should be less than 2%.
- Wet Swale sites should have poorly draining soils or high water table elevations. Infiltration rate should be <0.5 in/hr and the pooling of runoff will exceed 48 hours and can be up to 3 weeks.
- Shall not be appropriate where high pollutant or sediment loading is anticipated due to potential contamination of the groundwater.
- Shall be located at least 10 feet from building foundations (includes basement and crawl space walls, slabs on grade), greater if upgradient. May not be appropriate near buildings where there is significant risk for basement seepage.
- Impact on septic drain fields should be evaluated prior to application submission. Consult local setback requirements.

Vegetated Stormwater Conveyance (VSC)

Step-Pool Conveyance Swales: (VSC-SPCS):

- Shall have a maximum total contributing drainage area of 50 acres.
- Most often applicable to small headwater ephemeral swales, below pipe outfalls, or steep gullies.
- Longitudinal site slopes of 5% or less are recommended. Cascade grade control structures and additional settling pools should be used if the slope of the designed channel is >5%.
- Shall not be appropriate where high pollutant or sediment loading is anticipated due to potential contamination of the groundwater.
- Local ordinances should be consulted to determine minimum setbacks. Offsets are measured from the top of bank of the pools and riffle channel sections.

Vegetated Stormwater Conveyance (VSC)

Applicable to All Types:

- Shall be designed with enough capacity to convey runoff from the 10-year design storm event within the channel banks and be non-erosive during the 10-year design storm events (See Appendix A.2-A.4 for Calculations).
- Adequate conveyance of stormwater into and out of practice shall be in accordance with Appendix A.4 of this Manual or refer to Virginia Stormwater Management Handbook.
- Temporary and permanent channel linings must be verified as adequate for design flows and should include maximum permissible velocity specifications. Channel linings should be installed
 - according to the manufacturer's recommendations and in accordance with the Virginia Stormwater Management Handbook.
- Minimum planting density of 75% shall be achieved within two years of installation. Required density and minimum ground covers for all plantings will be based on mature size of approved species.
- Plant species must be considered native or nativity uncertain by the Flora of Virginia. Annual plants and harvestable vegetables are not allowed in the landscape plan and are not eligible for cost share. See Helpful Technical References for Flora of Virginia.

Suggested Spaci	ng
Perennials	1-2 feet
Grasses	2-3 feet
Small Shrubs (<6 feet)	3-5 feet
Large Shrubs (> 6 feet)	6-8 feet
Small Trees (< 25 feet)	25 feet
Medium Trees (<40 feet)	30 feet
Large Trees (> 40 feet)	35 feet

- Species, density/rate of seeding or planting, minimum quality of planting stock and method of establishment shall be specified as part of the application.
- Should not discharge directly into a natural stream channel and must be dispersed into a stable riparian buffer or vegetated filter strip. Design must ensure a stable, adequate outfall condition will exist (See Appendix B).
- o If applicable, engineered soil media of 80-90% sand by volume; 10-20 % soil fines by volume; and 3-5% leaf compost by weight. For simplification, the soil media could be made (DIY) from a Sand-Soil-Leaf Compost ratio of 4:1:3 by volume. WS may be less sandy and SPCS may use a mulch/sand mixture with larger woody components. The engineered soil media must be clean (free from debris and weed seeds) and homogenous or well-mixed. Test datasheets should be provided by vendor.

General Design Criteria as well as detailed design criteria per sub-type

Updated Design Plan Components section

Updated Operation and Maintenance section

Updated Technical References

Green Roofs (GR)

A. Purpose

Green roofs are designed so that water drains vertically through the medium and then horizontally along a waterproofing layer towards the outlet. There are two types of green roof systems:

- Intensive Green Roofs: growing medium layer that ranges from 6 inches to 4 feet thick, which is planted with a
 wide variety of plants including trees.
- Extensive Green Roofs: growing medium layer that ranges from 4-6 inches, which is planted with carefully selected drought-tolerant vegetation. These systems are recommended for use on buildings on most development and redevelopment sites.

This manual focuses on green roofs where stormwater management is the primary design objective. This specification covers extensive green roofs. Intensive green roofs, as defined by the Virginia Stormwater Management Handbook, are also eligible for cost share but are not covered by these specifications.

VCAP Implementation & Design Manual, Tenth Edition Green Roofs (GR)

C. Design Criteria

- All practices detaining and/or infiltrating runoff must be sized to treat a 1-inch rainfall volume as per the Virginia Stormwater Management Handbook.
- Plant establishment may be plugs/containers; cuttings; seeding; vegetated mats; or modular/tray systems.
- Minimum planting density of 80% shall be achieved within two years of installation. Required density and minimum ground covers for all plantings will be based on mature size of approved species.
- Only viable, high-quality seed or planting stock that is shallow-rooted, self-sustaining, and tolerant of direct sunlight, drought, wind, and frost should be used. Sedum, herbaceous plants, and perennial grasses, see suggested species chart and references for details.
- Seeding or planting must be done at a time and in a manner that best ensures survival and growth of the selected species. The planting window extends from the spring to early fall, allowing plants to root thoroughly before the first killing frost. Green Roofs should not be planted in the winter.
- Temporary irrigation is often necessary during dry months as the roof is established.
- Only the minimum amount of fertilizer necessary to establish vegetation growth shall be utilized (according to soil test report).
- Roof pitch shall be a minimum of ¼":12" (2%) and no more than 4":12" (33%).
- Design should accommodate flow and velocity appropriately, See Virginia Stormwater Management Handbook for guidance as needed.
- Drainage layer shall be a minimum of 1 inch of pea gravel or a mat system.
- Growing medium should be composed of approximately 80% to 90% lightweight inorganic materials, such as
 expanded slates, shales or clays, pumice, scoria, or other similar materials. The remaining medium should
 contain no more than 20% organic matter, normally well-aged compost. The growing medium should have a
 maximum water retention capacity of approximately 30%.
- Green Roof structural loads shall comply with Chapter 16 of the latest edition of the International Building Code.
- All material specifications and construction details shall be in accordance with the manufacturer's recommendations and Virginia Stormwater Management Handbook, P-FIL-02 Vegetated Roof.

Design Criteria no longer specifies minimum square footage

Updated Operation and Maintenance section

Updated Technical References

VCAP Implementation & Design Manual, Tenth Edition Green Roofs (GR)

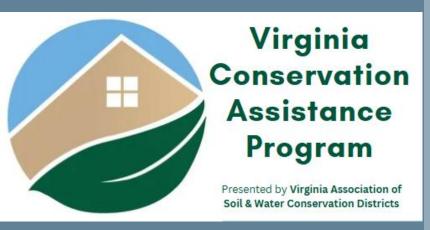
H. Sample Plant Palette for Green Roofs

Dianthus	Sedum reflexum	Allium cernuum
Campanula rotundifolia	Sedum spurium	Andropogon gerardii
Festuca glauca	Rudbeckia hirta	Bouteloua gracilis
Oenothera macrocarpa	Sedum Matrona	Achillea millefolium
Echinacea purpurea	Sempervivum	Potentilla verna
Opuntia humifusa	Dianthus	Delosperma 'Tiffendell Magenta'
Sedum sichotense	Potentilla tridentata	Hieracium lanatum
Amsonia tabernaemontana	Phlox subulata	Sedum lineare 'Variegatum'
Schizachyrium scoparium	Sedum	Sedum makinoi
Ratibida pinnata	Sedum spurium	Sedum tetractinum
Sorghastrum nutans	Sporobolus heterolepis	Sedum stoloniferum
Sedum spurium	Eryngium yuccifolium	Delosperma cooperi
Sedum telephium	Talinum calycinum	Delosperma ecklonis var.latifolia
Sempervivum Saturn	Jovibarba allionii	Hieracium villosum
Sedum sexangulare	Tulipa	Orostachys boehmeri
Sedum floriferum	Sedum takimensiense	Sedum hispanicum
Sempervivum arachnoideum	Sedum reflexum	Sedum pluricaule var. ezawe
Camassia leichtlinii	Aquilegia	Sedum urvillei

(VSMH Table P-FIL-02-5; Pollak Building at Virginia Commonwealth University)

This list is specifically for Green Roofs (GR) and shall not be used for other BMPs described in this manual.

Specification section now includes suggested GR plant list / sample palette





Final Reminders

- 1. Both the slides presented today, and a recording of this webinar will be posted on the <u>VASWCD VCAP Employee Resources Page</u>.
- 2. The Tenth Edition VCAP Manual will be available on the VASWCD website next week. Please review it thoroughly to familiarize yourself with its contents.
- 3. Minimum rank is now 65: tutorial on the new ranking sheet, including when and how to use the CL-1, 2, 3 unforested area criteria, will be shared and posted on the VASWCD website.
- 4. If you would like a hard copy of the manual, <u>please request it here</u>. We will only order printed manuals if it is cost-effective to do so.

Questions?